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PHA 4310 (3321/1/US)  
PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Mark L. Boys et al  
Serial No. 10/743,354  
Filed December 22, 2003  
Confirmation No. 9317  
For HETEROARYLALKANOIC ACIDS AS INTEGRIN  
RECEPTOR ANTAGONISTS DERIVATIVES

April 22, 2004

COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VIRGINIA 22313-1450

SIR:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with 37 C.F.R. 1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56, applicant submits copies of the references listed on the attached PTO/SB/08A for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record therein.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b) in that applicants believe that it is being filed prior to the mailing date of the first Office action on the merits. Accordingly, neither a statement nor fee under 37 C.F.R. §1.97(c) or (d) is required. However, if an Office action was issued prior to the date of mailing of this Information Disclosure Statement, the Commissioner is hereby authorized to charge any required fees regarding this Information Disclosure Statement to Deposit Account No. 19-1345.

Respectfully submitted,

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EJH/CDS/cms

PTO/SB/08A		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/743,354
		Filing Date	December 22, 2003
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		First Named Inventor	Mark L. Boys et al
		Group Art Unit	
		Examiner Name	
Sheet 1	of 4	Attorney Docket No.	PHA 4310 (3321/1/US)

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code <sup>2</sup> (if known)				
	1	5,700,823		Hirth et al	12/23/1997		
	2	5,773,646		Chandrakumar et al	06/30/1998		
	3	5,849,736		Wityak et al	12/15/1998		
	4	5,852,210		Chen et al	12/22/1998		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T <sup>6</sup>
		Office	Number <sup>4</sup>	Kind Code <sup>2</sup> (if known)			
	5	WO	92/07468	A1	Imperial Chemical Industries PLC	05/14/1992	
	6	WO	94/08577	A1	Merck & Co., Inc.	04/28/1994	
	7	WO	97/44333	A1	Merck Patent GMBH	11/27/1997	
	8	WO	99/26945	A1	Du Pont Pharmaceuticals Company	06/03/1999	
	9	WO	99/30709	A1	Merck & Co., Inc.	06/24/1999	
	10	WO	99/30713	A1	Merck & Co., Inc.	06/24/1999	

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	11	WO	00/07544	A2	Smithkline Beecham Corporation	02/17/2000	
	12	WO	00/33838	A1	Smithkline Beecham Corporation	06/15/2000	
	13	WO	00/72801	A2	Merck & Co., Inc.	12/07/2000	
	14	WO	01/24797	A1	Merck & Co., Inc.	04/12/2001	
	15	WO	01/96334	A2	Pharmacia Corporation	12/20/2001	
	16	WO	2002088118	A1	Anaclerio	11/07/2002	
	17	GB	2327672		Merck & Co., Inc.	02/03/1999	

#### OTHER ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	18	BAL et al., "Oxidation of $\alpha,\beta$ -Unsaturated Aldehydes", Tetrahedron, 1981, 37: 2091-2096	
	19	BEDFORD et al., "Nonquaternary Cholinesterase Reactivators. 3. 3(5)-Substituted 1,2,4-Oxadiazol-5(3)-aldoximes and 1,2,4-Oxadiazole-5(3)-thiocarbohydroximates as Reactivators of Organophosphonate-Inhibited Eel and Human Acetylcholinesterase in Vitro", Journal of Medicinal Chemistry, 1986, 29: 2174-2183	
	20	BERGE et al., "Pharmaceutical Salts", Journal of Pharmaceutical Sciences, 1977, 66(1): 1-19	
	21	BROWN et al., "Lignanes. 18. Synthèse Totale et Confirmation de la Structure de l'Acid Mégacérotinique", Tetrahedron, 1995, 51: 13061-13072	
	22	CHARO et al., "Inhibition of Fibrinogen Binding to GP IIb/IIIa by a GP IIIa Peptide", Journal of Biological Chemistry, 1991, 266(3): 1415-1421	
	23	CORNFORTH et al., "A Synthesis of Acylamidomalondialdehydes " Journal of the Chemical Society, 1949, 1550	

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24	DIEDERICH et al., "A Water-Soluble Tetraoxa[7.1.7.1] paracyclophane: Synthesis and Host-Guest Interactions with Alicyclic and Cationic Aromatic Guest Molecules in Aqueous Solution", <i>Chemische Berichte</i> , 1985, 118: 3817-3829	
25	ELLISON et al., "Cyclopentenone Synthesis Via Aldol Condensation. Synthesis of a Key Prostaglandin Intermediate", <i>Tetrahedron Letters</i> , 1975, 8: 499-502	
26	HOFMAN et al., "Studies Directed Towards the Total Synthesis of (+)-Himbacine", <i>Journal of Synthetic Organic Chemistry</i> , 1998, 479-489	
27	HUANG et al., "Expression of the Human Integrin $\beta 6$ Subunit in Alveolar Type II Cells and Bronchiolar Epithelial Cells Reverses Lung Inflammation in $\beta 6$ Knockout Mice", <i>American Journal of Respiratory Cell and Molecular Biology</i> , 1998, 19(4): 636-42	
28	KIRK et al., "Syntheses and Adrenergic Agonist Properties of Ring-Fluorinated Isoproterenols", <i>Journal Medicinal Chemistry</i> , 1982, 25: 680-684	
29	LEGTERS et al., "A Convenient Synthesis of Aziridine-2-carboxylic Esters", <i>Journal of the Royal Netherlands Chemical Society</i> , 1992, 111(1): 1-15	
30	MCELVAIN et al., "Piperidine Derivatives. XXX. 1,4-Dialkyl-4-arylpiperidines", <i>Journal of the American Chemical Society</i> , 1958, 80: 3915-3923	
31	MURI et al., "Synthesis of New Benzylic Ethers of Oximes Derived from 1-Phenyl-Pyrazole Compounds", <i>Synthetic Communications</i> , 1998, 28(7): 1299-1321	
32	NIIYA et al., "Increased Surface Expression of the Membrane Glycoprotein IIb/IIIa Complex Induced by Platelet Activation: Relationships to the Binding of Fibrinogen and Platelet Aggregation", <i>Blood</i> , 1987, 70: 475-483	
33	PYTELA et al., "Arginine-Glycine-Aspartic Acid Adhesion Receptors", <i>Methods in Enzymology</i> , 1987, 144: 475-489	
34	SUNDBERG et al., "Improved Procedures for Preparation of 4-Hydroxy- and 2-Amino-4-Methoxy-2-Aminopyridines", <i>Organic Preparations and Procedures Int.</i> , 1997, 29(1): 117-122	
35	TOKOROYAMA et al., "Folding Strain Stereocontrol in Cyclohexane Ring Formation by Means of an Intramolecular Ester Enolate Alkylation Reaction" <i>Canadian Journal of Chemistry</i> , 1996, 74(12): 2487-2502	

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	36	VOGEL, "Physical Properties and Chemical Constitution. Part II Esters of $\beta\beta$ -Substituted Glutaric Acids", Journal of the Chemical Society, 1934, 1758-1765	
	37	YATOHGO et al., "Novel Purification of Vitronectin from Human Plasma by Heparin Affinity chromatography", Cell Structure and Function, 1988, 13: 281-292	
	38	ZELLE et al., "A Simple, High-Yielding Method for the Methylenation of Catechols", Tetrahedron Letters, 1991, 32: 2461-2464	
	39	ZUCKER, "Platelet Aggregation Measured by the Photometric Method", Methods in Enzymology, 1989, 169: 117-133	

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